

REMARKS

Claims 1, 2, 6-13 were pending in this case and have been rejected. Applicants thank the Examiner for entering Applicants' amendment filed on August 23, 2004.

Applicants respectfully request consideration and examination of this application and the timely allowance of the pending claims in view of the arguments below.

Anticipation Rejection Under 35 USC § 102

The Examiner has rejected claims 2 and 6 under 35 USC §102(b) as allegedly being anticipated by U.S. Patent No. 5,431,916 to White (hereafter "*White*"). In particular, the Examiner alleges that *White* teaches that a composition comprising "effective amounts" of ibuprofen, diphenhydramine and polyethylene glycol can be formulated in soft gelatin capsule, recited in claims 2 and 6, and that the Applicants recitation of an intended use in claims 2 and 6 does not represent a patentable limitation. (9/22/04 Office Action at page 3).

Applicants respectfully traverse this rejection and submit that the Office has improperly characterized *White*. The claimed invention, as recited in independent claim 6, relates to a composition which includes both ibuprofen and diphenhydramine in amounts effective to treat a pain-associated sleep disturbance formulated in a soft gelatin capsule containing polyethylene glycol to prevent negative interactions between the ibuprofen and the diphenhydramine.

A proper anticipation rejection requires a prior art reference disclose each and every limitation of the claimed invention. Further, courts have generally held that the limitations must be arranged as in the claim allegedly being anticipated. For example,

as early as 1939, the Board of Patent Appeals held in *Ex parte Garvey*, 41 U.S.P.Q. 583, 584 (BPAI 1939):

[W]hile the invention here claimed in its broader aspects its doubtless embraced within the speculative teachings of the references, we doubt if references which are not directed to the same inventive concept, can be fairly applied in rejecting claims. . . where anticipation can be found only by making one of a very great number of possible permutations which are covered by the reference disclosures. The likelihood of producing a composition such as here from a disclosure such as shown by the [reference] patent would be about the same as the likelihood of discovering the combination of a safe from a mere inspection of the dials thereof.

Similarly, the Court in *In re Arkley*, 455 F.2d 586,587-588 (C.C.P.A. 1972) stated:

[T]o have been proper . . . reference must clearly and unequivocally disclose the claimed compound or direct those skilled in the art to the compound without any need for picking, choosing, and combining various disclosures not directly related to each other by the teachings of the cited reference. Such picking and choosing may be entirely proper in the making of a 103, obviousness rejection, wherein the applicant must be afforded an opportunity to rebut with objective evidence any inference of obviousness which may arise from the similarity of the subject matter which he claims to the prior art, but it has no place in the making of a 102, anticipation rejection.

Applying this legal precedent to the instant case, Applicants note that while *White* may list the various compounds recited in the instant claims, *White* fails to specifically disclose the claimed composition. *White*, on the other hand, would require random picking and choosing among a number of different pharmaceutically acceptable actives, which would be improper in an anticipation rejection, as discussed above.

For example *White* discusses at column 5, lines 24-40:

Useful classes of pharmaceutically acceptable active components which can be incorporated into the present compositions include, but are not limited to, analgesics, anti-inflammatory agents, anti-pyretics, calcium channel blockers, beta-blockers, anti-bacterials, antidepressants, antidiabetics, anti-emetics, antihistamines, cerebral stimulants, sedatives, anti-parasitics, expectorants, diuretics, decongestants, antitussives, muscle relaxants, anti-Parkinsonian agents, bronchodilators, cardiotonics, antibiotics, antivirals, nutritional supplements (such as vitamins, minerals, fatty acids, amino acids, and the like), their pharmaceutically acceptable salts and compatible mixtures thereof. Pharmaceutical acceptable actives selected from the non-narcotic analgesics/nonsteroidal anti-inflammatory drugs are also useful in the present invention.

The Examiner appears to rely on the discussion in *White* at column 5, lines 63-68, and at column 6, lines 1-7, which provide additional examples of pharmaceutically acceptable actives.

For example, *White* further discusses at column 5, lines 63-68:

Examples of preferred pharmaceutically acceptable actives useful in the present invention include, but are not limited to, acetaminophen, acetylsalicylic acid, ibuprofen, flurbiprofen, ketoprofen, naproxen, lopermide, their pharmaceutically-acceptable salts, and compatible mixtures thereof.

Additionally, *White* discusses at column 6, lines 1-7:

Further examples of pharmaceutically acceptable actives useful in the present invention include, but are not limited to, pseudoephedrine, dextromethorphan, doxylamine, chlorpheniramine, ephedrine, triprolidine, diphenhydramine, phenyltoloxylamine, guaifenesin, phenylpropanolamine,

caffeine, their pharmaceutically acceptable salts, and compatible mixtures thereof.

However, contrary to the Examiner's characterization of *White*, *White* does not provide any guidance to specifically pick and choose ibuprofen and diphenhydramine from a laundry list of pharmaceutically acceptable actives disclosed therein. *White*, in fact provides a plethora of choices for pharmaceutically acceptable actives and would require random and picking and choosing, which would be improper in an anticipation determination.

White further discusses at column 6, lines 41-43:

An optional component that may be used to solubilize certain pharmaceutical actives is polyethylene glycol.

However, *White* fails to teach or suggest that pharmaceutical actives that can be solubilized using polyethylene glycol include one or both of ibuprofen and diphenhydramine, thereby failing to provide any reason to use polyethylene glycol in combination with ibuprofen and diphenhydramine, let alone use this combination in a soft gel capsule. This is supported by the compositions disclosed in the Examples in *White*. Examples I-IX in *White* provide various compositions which may be encapsulated within soft gelatin shells. However, Applicants note that the only composition discussed in *White* which actually includes both ibuprofen and diphenhydramine is in Example IV. (See, column 11, lines 10-20). However, this composition does not include polyethylene glycol. Further, the composition which includes polyethylene glycol is taught in Example VIII and it does not include either

ibuprofen or diphenhydramine. In fact, most of the compositions in the Examples in *White* do not include polyethylene glycol, which suggests that these compositions can be encapsulated in a soft gelatin capsule without any need for polyethylene glycol, including the composition in Example IV, which includes both ibuprofen and diphenhydramine.

Accordingly, not only does *White* fail to specifically teach or suggest the claimed composition, but *White* also provides no motivation to use polyethylene glycol in combination with ibuprofen and diphenhydramine in a soft gel capsule.

In view of the foregoing, Applicants submit that *White* fails to anticipate the claimed invention or render it obvious and request that this rejection be withdrawn.

Obviousness Rejections Under 35 USC § 103

Claims 2 and 6-13 have been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 4,522,826 to Sunshine (hereafter "*Sunshine*") in view of *White*. Specifically, the Examiner alleges that it would have been obvious to one of ordinary skill in the art to formulate the composition in *Sunshine* into a soft gelatin capsule because *White* teaches that a composition comprising diphenhydramine and ibuprofen can be formulated in soft gelatin capsules. (9/22/04 Office Action at page 4).

Applicants respectfully traverse this rejection. A proper *prima facie* obviousness rejection requires that there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Additionally, there must be a reasonable expectation of success. Finally, the prior art reference (or

references when combined) must teach or suggest all the claim limitations. See M.P.E.P. § 2143. Also, see *In re Vaeck*, 947 F.2d 488, 493, 20 U.S.P.Q.2d 1438, 1443 (Fed. Cir. 1991) (the teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure).

Additionally, the Federal Circuit has repeatedly stated that "there is no basis for concluding that an invention would have been obvious solely because it is a combination of elements that were known in the art at the time of the invention." See, for example, *Smiths Industries Medical Sys., Inc. v. Vital Signs, Inc.*, 183 F.3d 1347, 1355, 51 U.S.P.Q.2d 1415, 1423 (Fed. Cir. 1999). The Federal Circuit also recognizes that "virtually all inventions are combinations of old elements If identification of each claimed element in the prior art were sufficient to negate patentability, very few patents would ever issue." See, for example, *In re Rouffet*, 149 F.3d 1350, 1356, 47 U.S.P.Q.2d 1453, 1459 (Fed. Cir. 1998).

Accordingly, Applicants respectfully submit that it is now well settled law that obviousness cannot be established simply by combining the teachings of the prior art references, absent some teaching or suggestion in the prior art that such a combination can be made. See also, for example, *In re Gieger*, 815 F.2d 686, 688, 2 U.S.P.Q.2d 1276, 1278 (Fed. Cir. 1987); *ACS Hospital Systems, Inc. v. Montefiore Hospital*, 732 F.2d 1572, 1577, 221 U.S.P.Q. 929, 933 (Fed. Cir. 1984).

Applying this legal precedent to the instant case, Applicants submit that there is no teaching or suggestion in any of the cited references to modify their teachings to arrive at the claimed invention. A disclosure of the various components of the claimed

invention in the prior art does not make the invention obvious, as is clear from the legal precedent discussed above.

As discussed above, independent claim 6 relates to a composition which includes both ibuprofen and diphenhydramine in amounts effective to treat a pain-associated sleep disturbance formulated in a soft gelatin capsule containing polyethylene glycol to prevent negative interactions between the ibuprofen and the diphenhydramine.

Applicants submit that contrary to the Examiner's contention, *Sunshine* fails to specifically disclose the claimed composition including polyethylene glycol in combination with ibuprofen and diphenhydramine.

Applicants note that *Sunshine* mentions polyethylene glycol only as a suitable binder among a laundry list of binders. For example, *Sunshine* discusses at col. 7, lines 30-33:

Suitable binders include starch, gelatin, natural sugars, corn sweeteners, natural and synthetic gums such as acacia, sodium alginate, carboxymethylcellulose, polyethylene glycol and waxes.

Applicants note that the laundry list of binders in *Sunshine* includes several genres of binders (e.g., waxes, natural sugars, natural and synthetic gums) and specific species (e.g., sodium alginate, polyethylene glycol), thereby providing a plethora of choices for selection. *Sunshine* fails to provide any motivation to pick a particular binder from the list. Courts have generally held that a prior art reference containing a "needle-in-the-haystack" type disclosure does not render a patent obvious. See, for example, *In re Luvisi*, 342 F.2d 102, 105, 144 U.S.P.Q. 646, 649 (C.C.P.A. 1965).

In *Luvisi*, the claimed invention related to a process for killing undesired vegetation and compositions for accomplishing the same, which had some synergistic properties. The claimed composition in *Luvisi* included two essential ingredients. The Patent Office Board of Appeals rejected the claimed composition as being obvious in view of a primary reference which disclosed a list of compounds, about fifty in number, including one of the compounds that could be used in the claimed composition, in combination with a secondary reference, which disclosed a second compound of the claimed composition. The Court in *Luvisi* reversed the obviousness finding of the Board and reasoned that the primary reference contained a “needle-in-the-haystack” disclosure. There was nothing in the primary reference that would suggest combining a particular compound from the list of fifty compounds with a compound disclosed in the secondary reference, nor any disclosure teaching that the resulting composition had synergistic properties. The Court further discussed that while it was possible to piece together isolated features of patentee’s invention taken from the cited references with the aid of patentee’s disclosure, that the invention would not have been obvious in the absence of such disclosure. Specifically, the Court stated “[W]hereas a brief and selective presentation of the teachings of the art of record, such as that outlined . . . may cause such a conclusion to appear reasonable, we believe it becomes so only through hindsight reasoning.” *Luvisi* at 1067.

Applying this legal precedent to the instant case, Applicants note that there is nothing in *Sunshine* that would suggest specifically using polyethylene glycol, listed among five genres and six species of binders, in compositions of the claimed invention. Further, as in case of *Luvisi*, even though *Sunshine* lists isolated pieces of

the claimed invention (i.e., ibuprofen, diphenhydramine and PEG), it would be possible to combine them only in hindsight, based on the instant specification.

In view of the foregoing, Applicants submit that *Sunshine* fails to direct one of ordinary skill in the art to polyethylene glycol. Accordingly, Applicants submit that it is improper for the Examiner to pick and choose polyethylene glycol from the list of binders in hindsight, as a mere list of compounds in *Sunshine* does not direct one of ordinary skill in the art to polyethylene glycol.

Additionally, *Sunshine* also fails to teach or suggest formulating the claimed composition in a soft gelatin capsule.

White fails to cure the deficiencies of *Sunshine*. The Examiner appears to rely on *White* for providing the motivation to use the claimed composition in soft gel capsules. At least for the reasons discussed above, Applicants note that *White* fails to specifically disclose a composition which includes all three claimed components, i.e., ibuprofen, diphenhydramine and polyethylene glycol. Additionally, *White* also does not teach or suggest formulating this composition in a soft gelatin capsule. In fact, *White* teaches away from formulating a composition containing ibuprofen, diphenhydramine and polyethylene glycol in a soft gel capsule, as it teaches that a composition containing only ibuprofen and diphenhydramine can be formulated in a capsule without any need for polyethylene glycol. As discussed above, at best, based on *White*, one of ordinary skill in the art may be motivated to formulate a composition which either contains ibuprofen and diphenhydramine but no polyethylene glycol or contains polyethylene glycol in combination with components other than ibuprofen and diphenhydramine in a soft gelatin capsule. However, *White* fails to provide any motivation to formulate a

composition containing all three of ibuprofen, diphenhydramine and polyethylene glycol in a soft gel capsule.

Accordingly, Applicants submit that not only do none of *Sunshine* and *White* specifically disclose the claimed composition which contains all three of ibuprofen, diphenhydramine and polyethylene glycol, but *White* provides no motivation to formulate such a composition in a soft gelatin capsule.

In view of the foregoing, Applicants request that this rejection be withdrawn.

Claims 1, 2 and 7-13 have been rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over *Sunshine* in view of U.S. Patent No. 5,512,300 to Weng (hereafter "*Weng*") and further in view of U.S. Patent No. 6,287,600 to Ouali (hereafter "*Ouali*"). (9/22/04 Office Action at page 5). The Examiner is alleging that it would have been obvious for one of ordinary skill in the art to separate diphenhydramine and ibuprofen of *Sunshine* in a bilayer tablet because *Weng* teaches that such a composition has stability problems and *Ouali* provides the motivation to use a bilayer tablet to physically separate the two. (9/22/04 Office Action at page 6).

Applicants submit that the Examiner has failed to provide any motivation in any of the references to modify or combine their teachings. A disclosure of the various components of the claimed invention in the prior art does not make the invention obvious, as is clear from the legal precedent discussed above.

Claim 1 is directed to a composition comprising ibuprofen and diphenhydramine in a bilayer tablet or a bilayer capsule to prevent negative interactions between diphenhydramine and ibuprofen.

The Examiner appears to contend that the composition disclosed in *Sunshine* may be formulated as a two-layered tablet. Applicants submit that *Sunshine* discusses layered tablets in which both ibuprofen and diphenhydramine are contained in each layer. See, for example, column 8, lines 6-13:

[W]ith respect to such layered tablets, one layer may contain an initial dosing amount of, for example, ibuprofen, of 400 milligrams and 25 milligrams of diphenhydramine, whereas two or more further layers may contain, for instance, 100 milligrams of ibuprofen and 15 to 25 milligrams of diphenhydramine to be released serially every 4 to 6 hours consistent with the normal dosage schedule.

Sunshine fails to perceive any problems with having ibuprofen and diphenhydramine in the same composition, thereby providing no motivation to separate the two. In fact, *Sunshine* teaches combining them. For example, Example 1 in *Sunshine* discusses that the composition containing both ibuprofen and diphenhydramine had synergistic properties. Accordingly, based on the alleged success of a composition containing both ibuprofen and diphenhydramine, one of ordinary skill in the art would have no motivation to separate the two.

None of *Weng* and *Ouali* cure the deficiencies of *Sunshine*. *Weng* discusses methods for preparing ibuprofen granulations which exhibit improved stability and resistance to the formation of low melting point eutectics. See Abstract. *Weng* discusses that ibuprofen forms low melting point eutectics with substances such as diphenhydramine hydrochloride and astemizole. See column 1, lines 56-58. *Weng*, however, fails to teach or suggest, separating ibuprofen from another substance to solve this problem. *Weng*, on the other hand, focuses on preparing stabilized ibuprofen by chemically treating ibuprofen using methods described therein. Therefore, based on

Weng, at best one of ordinary skill in the art might be motivated to use chemically treated ibuprofen in combination with diphenhydramine, and not a bilayer tablet to separate the two.

The Examiner appears to rely on *Ouali* as providing the motivation to separate the ibuprofen from diphenhydramine. Applicants disagree with the Examiner's understanding of *Ouali*. *Ouali* discusses compositions which contain an NSAID and a prostaglandin. See Abstract. *Ouali* mentions ibuprofen as an NSAID, among a laundry list of NSAIDs. See, column 4, lines 23-36. Further, *Ouali* discusses that NSAIDs have certain undesirable side-effects and they maybe administered with prostaglandins to reduce some of the side effects of the NSAIDs. See, for example, column 1, line 59 to column 2, line 13. *Ouali* solves this problem using a bilayer tablet for administering both NSAID and a prostaglandin to a patient. See, for example, column 2, lines 33-39 and lines 56-59. Therefore, *Ouali* appears to use a bilayer tablet to administer two components to a patient at the same time and not to separate the two.

Further, Applicants note that while *Ouali* may mention ibuprofen among a laundry list of NSAIDs, none of the bilayer tablets discussed in *Ouali* even contain ibuprofen. See, Examples 1- 5, none of which teach using ibuprofen as an NSAID in a bilayer tablet. Further, even if one of ordinary skill in the art was motivated to use ibuprofen in a bilayer tablet, based on *Ouali*, they would use ibuprofen only in combination with a prostaglandin, as discussed in *Ouali*, and not diphenhydramine, as recited in the instant claims.

Accordingly, Applicants disagree with the Examiner's contention that *Ouali* provides the motivation to use a bilayer tablet to separate ibuprofen from

diphenhydramine, as not only does it use a bilayer tablet for a completely different purpose than the claimed invention, but at best it provides the motivation to formulate a bilayer tablet containing an NSAID and a prostaglandin, and not ibuprofen and diphenhydramine.

In view of the foregoing, Applicants submit that claimed invention is not obvious in view of the cited art and that the pending claims are in condition for allowance.

CONCLUSION

In view of the foregoing remarks, Applicants submit that this claimed invention is not rendered obvious in view of the references cited against this application. Applicants therefore request the entry of this Amendment, the Examiner's reconsideration and the timely allowance of the pending claims. Should the Examiner feel that this application is not in condition for allowance, Applicants request that the Examiner contact the undersigned representative at 202-408-4086.

If there is any fee due in connection with the filing of this Amendment, please charge the fee to our Deposit Account No. 06-0916.

Respectfully submitted,

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